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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,165	12/26/2001	John P. Franz	1662-58300 JMH (P01-3900)	4887

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CONLEY ROSE, P.C.  
P. O. BOX 3267  
HOUSTON, TX 77253-3267

EXAMINER
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CHERVINSKY, BORIS LEO

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/036,165

Applicant(s)

FRANZ ET AL.

Examiner

Boris L. Chervinsky

Art Unit

2835

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the lever and arm as described in the specification, the lever and arm shown on Fig.4 does not correspond to elements shown on Fig. 9. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "46" has been used to designate both extended arm and an open position (see Page 8, line 15). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 3, 14, 19, 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.  

Claims 3, 14, 19 and 23 are vague and indefinite because insufficient details are shown in the drawings.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 4-12, 15-18, 21, 22, 24-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Cromwell.

Cromwell discloses a computer assembly comprising an integrated circuit chip (IC) 3, a heat sink 1 with a base, an alignment cage 13 attached to the heat sink 1 and receiving the IC, a circuit board 15, a socket 11 mounted to the circuit board 15, the alignment cage 13 comprises an alignment tab 8, 12 that aligns the alignment cage to the socket 11, a plurality of alignment pins 17 are attached to the heat sink 1 and engaged with a receptacle in the circuit board (not numbered), the IC is attached to the alignment cage before being installed on the socket, the interface between the chip and the socket cannot be observed because it is obscured by the heat sink. The method steps of claims 6-9, 26-29 are necessitated by the device structure as disclosed by Cromwell.

7. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Thomsen. Thomsen discloses an integrated circuit chip socket 53 having open and closed positions comprising an interface for coupling an integrated circuit chip (IC) to a circuit board 51 and plurality of slots 55 disposed around the perimeter of the interface and providing an interface surface for alignment of a heat sink.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromwell in view of Lo.

Cromwell discloses the claimed invention except the locking lever. Lo discloses the assembly having the locking lever that is actuatable when the heat sink installed. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the locking lever as disclosed by Lo in the structure disclosed by Cromwell for locking and releasing the IC.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomsen in view of Lo.

Thomsen discloses the claimed invention except a locking arm. Lo discloses the locking arm mounted on an extended portion for actuating the socket in open or closed position. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the locking arm as disclosed by Lo in the socket disclosed by Thomsen for locking and releasing the IC.

11. Claim 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo.

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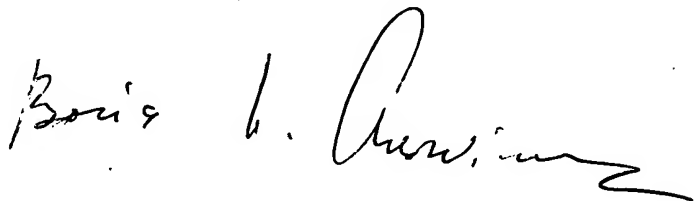
Lo discloses a circuit chip 42 and a heat sink 10 mounted on a socket 50, a locking lever on the socket allows the removal of the heat sink of the socket and consequently removing the IC chip from the heat sink because the IC chip remains attached to the heat sink by tabs 17 and 18. Lo discloses the claimed invention except the circuit board. It would have been obvious at the time the invention was made to a person having ordinary skill in the art that the socket must be mounted on the circuit board to be functional.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris L. Chervinsky whose telephone number is 703-308-5429. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on 703-308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-5115.

**BORIS CHERVINSKY**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read "Boris L. Chervinsky", written in a cursive style.